



May 25, 2018

Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: GN Docket Nos. 17-183, 18-122
***Ex Parte* Notice**

Dear Ms. Dortch:

Pursuant to Section 1.1200, *et seq.*, of the Commission's Rules, National Public Radio, Inc. ("NPR") hereby notifies the Commission of the following *ex parte* presentation in the above-referenced proceedings.

On Wednesday, May 23, 2018, Joni Lupovitz, NPR Senior Director of Public Policy, met with Commissioner Rosenworcel, Kate Black, her Policy Advisor, Media, and Umair Javed, her Legal Advisor, Wireless and International. During the meeting, they discussed NPR's concerns about possible changes to the Commission's rules regarding the use and licensing of C-band spectrum (3.7-4.2 GHz), on which the public radio satellite system ("PRSS") depends for reliable distribution of programming to the 1,278 public radio stations that together broadcast public radio programming to 42 million Americans each week.

In particular, Ms. Lupovitz discussed the lack of available, cost-effective alternatives to satellite for reliable program distribution to public radio stations across the country, including rural and remote areas. She stated that NPR previously hired an independent consultant to evaluate terrestrial/fiber-based and other alternatives to the current satellite delivery system; NPR concluded that such alternatives were cost-prohibitive for public radio and did not reach some parts of the country. The participants discussed the importance of local public radio stations for news and information, including in times of emergencies, when other communications systems may fail. Ms. Lupovitz also noted that sharing spectrum with mobile wireless services was not feasible because of likely harmful interference with the PRSS's extremely low-power downlinks.

During the discussion, NPR provided the attached materials to Commissioner Rosenworcel's staff.

Please direct any questions you may have to the undersigned at 202.513.3275.

Sincerely,

Adam Shoemaker /s/
Adam Shoemaker
Counsel

cc: Commissioner Jessica Rosenworcel
Ms. Kate Black
Mr. Umair Javed



FCC Mid-Band Spectrum Inquiry

April 2018

Why Satellite Delivery Is Essential For Public Radio

- Universal service for the American people
- Public radio's infrastructure relies on satellite distribution to deliver content to and among its interconnected stations, producers and distributors.
- Without satellite delivery for the interconnection system, the U.S.'s nationwide public radio and public safety information distribution systems would cease to exist.
- Public media's infrastructure system provides Americans with timely, critical information before, during, and in the wake of emergencies.
- Satellite delivery is the most cost-effective, secure, and reliable technology currently available to serve this national infrastructure. It is unparalleled in reaching even the most rural and remote regions of the U.S.

The Public Radio Satellite System (PRSS) Overview

THE PRSS SERVES THE AMERICAN PUBLIC – AN INDISPENSABLE LINK

CONNECTS LOCAL PUBLIC RADIO STATIONS + PROGRAMMERS + AMERICAN PEOPLE

The Public Radio Satellite System, managed by NPR, works in partnership with producers, distributors and broadcast stations to provide interconnection for the entire public radio system (NPR members and more).

BROADCAST SIGNALS REACH 95% OF THE AMERICAN PUBLIC; 300 MILLION AMERICANS

Locations: 50 States, D.C., U.S. Virgin Islands, Puerto Rico and Guam

THE SYSTEM

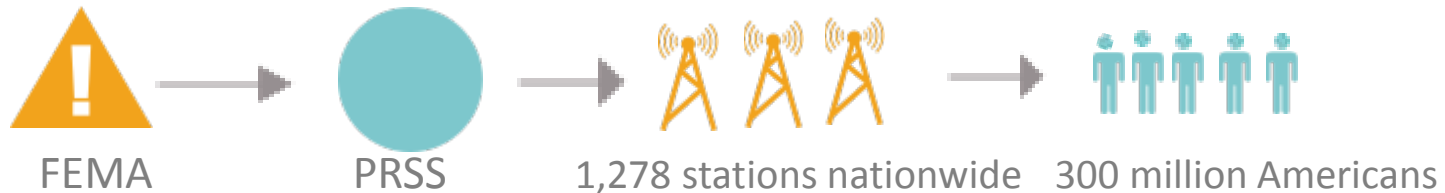
- 1,278 public radio stations
- 100+ program producers (including NPR, APM, and PRI)
- 450K hours of programming a year
- 80% of programming is broadcast *live*
- 42 million American listeners per week
- Used for national and regional emergency alerting

Public Safety & Emergency Alerts

Public media's infrastructure system provides Americans with timely, critical information before, during, and in the wake of emergencies.

How PRSS's Nationwide Emergency Alerting Works

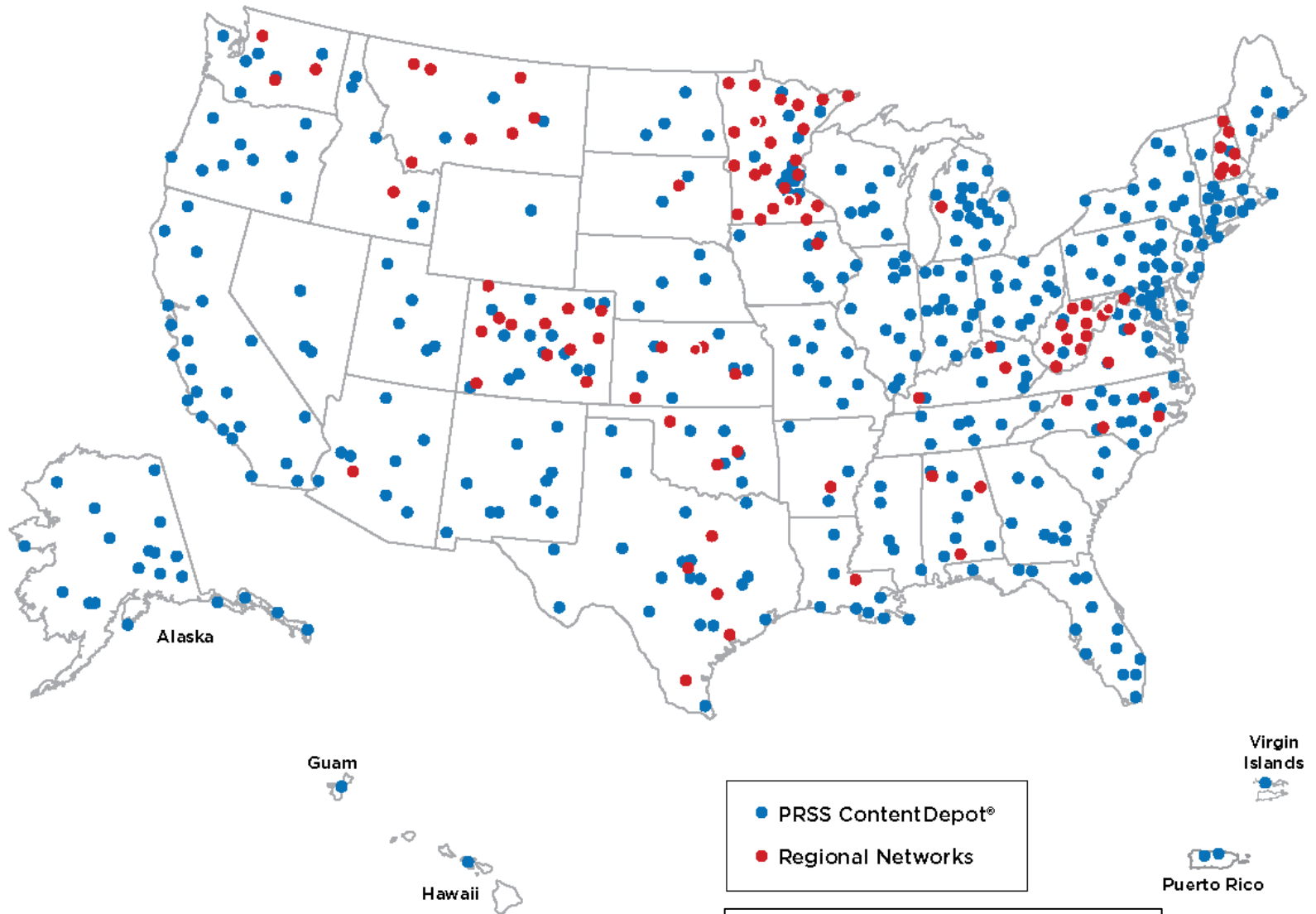
PRSS receives the Presidential-level Emergency Alert System feed directly from FEMA, which it then transmits to 1,278 independently-owned stations nationwide for broadcast across America – *even when power grids and internet services are down.*



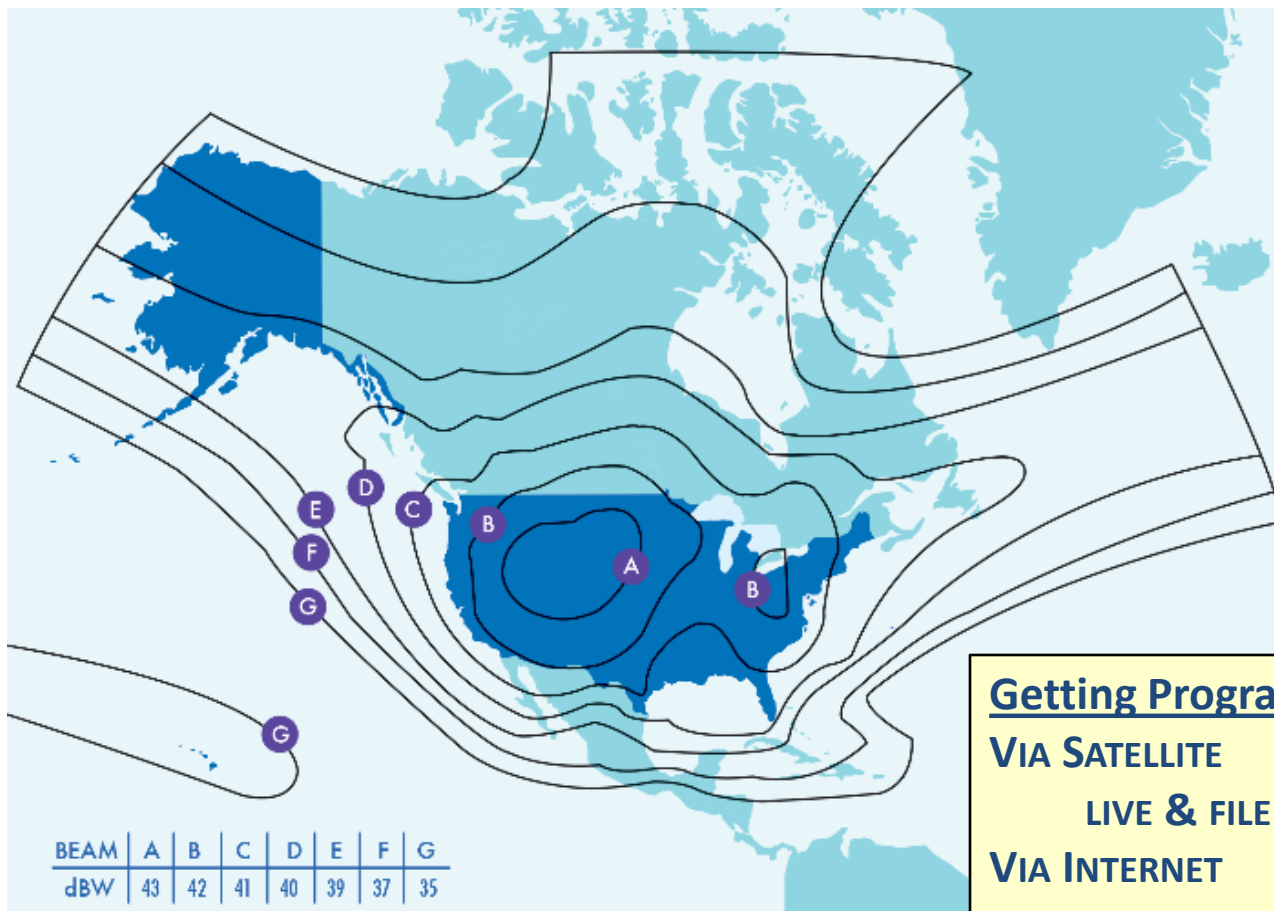
Resilient Communications Before, During & After Disasters

- Redundant, safe satellite network
- Regional emergency networks operate through NPR satellite bandwidth
 - E.g., Minnesota, Louisiana, West Virginia
- Temporary regional networks operate during disasters
 - E.g., Florida Public Radio Emergency Network (FPREN)
- Resilient satellite and public radio system keep local residents informed when disaster strikes – even when power grids, Internet & other communications systems are down, and even in rural and remote areas
 - See NPR Comments: Response Efforts Undertaken During 2017 Hurricane Season, FCC PS Dkt. No. 17-344 (Jan. 22, 2018).

Public Radio C-Band Downlinks



Reach of the PRSS: Intelsat Galaxy 16 Satellite Transmission Footprint



Getting Programs to Stations

VIA SATELLITE

LIVE & FILE PROGRAMS

VIA INTERNET

FILE PROGRAMS ONLY

PRSS Leases A Satellite Transponder from Intelsat on C-Band



Downlink Frequencies

Galaxy 16/Transponder 1, C-Band:
Lower Frequency 3702.00 to
Upper Frequency 3738.00

Uplink Frequencies

Galaxy 16/Transponder 1, C-Band:
Lower Frequency 5927.00 to
Upper Frequency 5963.00

Next Generation System

- Congress has provided longstanding, federal funding for PRSS since the 1970s
- Congressional funding initiated for \$53.5 million upgrade
 - 10-year-long project; funded in one-year increments
- Supports complete refresh of current system, including:
 - Improved satellite transponder efficiency
 - Software and equipment at local stations
 - Improvements at the network level (Network Operations Center & Backup NOC)
 - Satellite lease and insurance
- Independent studies show PRSS is utilizing the most cost-effective, secure, and reliable technologies on the market.
 - In June 2016, the Corporation for Public Broadcasting engaged an independent consultant to review the proposed replacement plan for PRSS. The consultant found: “No other alternative discussed or examined – including commercially available options – is more cost effective or likely to result in success.”

Future Systems Considered

SYSTEM SELECTED

Two potential systems were evaluated

	TERRESTRIAL NETWORK AND SATELLITE / INTERNET DELIVERY SYSTEM	MAJOR REFRESH OF CURRENT SATELLITE DELIVERY SYSTEM
TECHNOLOGY	PRIVATE TERRESTRIAL NETWORK FOR SOME STATIONS AND SATELLITE / INTERNET FOR OTHER STATIONS	MAJOR UPGRADE OF SATELLITE & INTERNET NETWORK FOR ALL STATIONS
COST	\$200+ MILLION, WHERE AVAILABLE	\$53.5 MILLION
SERVICE AVAILABILITY	TERRESTRIAL IS LIMITED; UNAVAILABLE IN PARTS OF ALASKA, SOUTHWEST U.S., MICHIGAN UPPER PENINSULA	COVERS ENTIRE NETWORK

C-Band vs. Alternatives

C-Band – Status Quo

- Cost-effective and proven
- Reliable (critical for live programming)
- Reaches stations across continent and beyond
- Virtually eliminates business-continuity risk, with full-band, full-arc licensing that sustains services through satellite disruptions

Options

MOVE TO DIFFERENT PART OF SPECTRUM, IF AVAILABLE – *Some disruption*

Best alternative to status quo

SHARE SPECTRUM – *Non-starter, not feasible*

No proven interference protections available

RELOCATE SELECTED ANTENNAS + FIBER BACK TO STATION – *Very disruptive*

High operational & business-recovery risk; Lack of control

MOVE TO ALL-TERRESTRIAL SYSTEM – *Very disruptive*

No universal service; Adds considerable risk & cost

C-BAND Spectrum Required for PRSS Operations

